

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A composite current collector in which, after forming on a surface of a resin film a conductive treatment layer whose surface electric resistance is not higher than $1.3 \Omega/\text{cm}$ by performing a conductive treatment, a plating layer whose thickness is at least $0.3 \mu\text{m}$ per one face is formed by an electrolytic plating treatment,

characterized in that the surface electric resistance after the electrolytic plating is not higher than $40 \text{ m}\Omega/\text{cm}$, and additionally following expression is satisfied:

$$Y1 + Y2 + Y3 \leq 0.8 \times ((X1 + X2 + X3) \times Y3/X3)$$

where X1: thickness of resin film (μm)

X2: thickness of conductive treatment layer (μm)

X3: thickness of plating layer (μm)

Y1: weight of resin film (mg/cm^2)

Y2: weight of conductive treatment layer (mg/cm^2)

Y3: weight of plating layer (mg/cm^2).

2. (Original) A composite current collector set forth in claim 1, characterized in that a tensile strength is at least 0.8 kg/cm.

3. (Original) A composite current collector set forth in claim 1, wherein the conductive treatment layer is a conductive painted film formed by applying a conductive paint and curing it.

4. (Original) A composite current collector set forth in claim 1, wherein the conductive treatment layer is a very thin metal thin film formed by a vapor deposition or a sputtering of a metal.

5. (Original) A composite current collector set forth in claim 3, wherein the conductive painted film is made by blending a conductive agent comprising one or at least two of Cu, Ag, Ni and conductive carbon to a resin.

6. (Original) A composite current collector set forth in claim 4, wherein the very thin metal thin film comprises one or at least two of Cu, Ag, Ni and Al.

7. (Original) A composite current collector set forth in claim 1, wherein the plating layer is one whose main component is Cu, Ni or Al.

8. (Currently Amended) A composite current collector set forth in ~~any of claims 1 -- 2~~ claim 1, wherein the resin film is wavy or one in whose surface there has been formed an irregularities pattern.

9. (Original) A composite current collector in which conductive treatment layers are formed on both faces of a resin film having many through-holes, characterized in that, after forming a plating layer on the conductive treatment layer by an electrolytic plating treatment, a surface electric resistance is not higher than $40 \text{ m}\Omega/\text{cm}$, a tensile strength higher than 0.8 kg/cm and a front/back current-carrying resistance not higher than $100 \text{ m}\Omega$, and additionally following expression (2) is satisfied:

$$Y1 + Y2 + Y3 \leq 0.8 \times (X1 + X2 + X3) \times Y3/X3 \dots (2)$$

where X1: thickness of resin film (μm),

X2: thickness of conductive treatment layer (μm),

X3: thickness of plating layer (μm),

Y1: weight of resin film (mg/cm^2),

Y2: weight of conductive treatment layer (mg/cm^2),

Y3: weight of plating layer (mg/cm^2).

10. (Original) A composite current collector set forth in claim 9, characterized in that the through-hole is filled by the conductive treatment layer.

11. (Original) A composite current collector set forth in claim 9, characterized in that the conductive treatment layer is formed also in a section of the through-hole, and additionally a plating layer is formed in an upper layer of the conductive treatment layer.

12. (Original) A composite current collector set forth in claim 9 ~~or 11~~, wherein the plating layer is one whose main component is Cu, Ni or Al.

13. (Original) A composite current collector set forth in claim 9, wherein the resin film is wavy or one in whose surface there has been formed an irregularities pattern.

14. (New) A composite current collector set forth in claim 2, wherein the resin film is wavy or one in whose surface there has been formed an irregularities pattern.

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15. (New) A composite current collector set forth in claim 11, wherein the plating layer is one whose main component is Cu, Ni or Al.